CLAIMS

What is claimed is:

1.   A method for storing units of incoming video data on an empty storage medium comprising the steps of:

a.   establishing a set of priorities for video data of different types;

b.   establishing a set of rules for each established priority;

c.   assigning a priority to each unit of incoming video data according to its type;

d.   storing said units of incoming video data on said storage medium until all storage locations thereon are occupied;

e.   thereafter storing units of incoming video data at storage locations on said medium by overwriting existing stored video data at said locations, said locations being selected according to the lowest priority video data that is expendable according to any applicable rules.

2.   The method of claim 1 wherein the creation time of each incoming unit of video data is maintained and said rules are based on the age of the data.

3.   The method of claim 1 wherein said rules include at least one retention time for each established priority, and existing stored video data of a given priority is overwritten with incoming video data if the age of the existing video is outside of the applicable the retention time.

4.   The method of claim 3 wherein the selection of storage locations to be overwritten comprises the additional steps of identifying the stored video at each priority level, beginning at the lowest priority level, applying any applicable rules to the video at such priority level to determine whether any such video stored at a given location is expendable, and overwriting the first identified expendable video with the incoming video.

5.   The method of claim 4 wherein in the event that more than one stored video at a given priority level is determined to be expendable, the oldest such video is overwritten by the incoming video.

6.   The method of claim 4 wherein at least one priority level calls for indefinitely maintaining video data that is assigned such priority.

7.   The method of claim 5 wherein at least two different priority levels are established, and each priority level has a different retention time with longer retention times assigned to higher priority levels.

8.   The method of claim 4 comprising the additional step of changing the priority of stored video data units in real time in order to change the availability of the space occupied by that data on the storage medium.

9.   The method of claim 4 wherein the types of data are selected from the group consisting of: alarm, pre-alarm, event, pre-event, archive, continuous, scheduled, user-defined, and combinations thereof.

5   10.   A method for prioritizing video data to determine which data on a storage medium will be overwritten to make way for new data comprising the steps of:

        a.   establishing a set of priorities for video data of different types;

        b.   establishing a set of rules for maintaining video data of a given priority;

        c.   assigning a priority to each new data unit according to its type;

10   d.   if empty storage locations are available on said medium, storing units of video data in said empty storage locations;

        e.   if empty storage locations are not available, selecting a storage location containing video data having the lowest priority that is expendable according to the data priority and the established rules; and

15   f.   overwriting the video data in said selected storage location with said new video data.

        11.   The method of claim 10 wherein the established priorities and rules may be changed in real time.

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        12.   The method of claim 11 comprising the additional step of changing the priority of stored video data units in real time in order to change the availability of the space occupied by the associated video data on the storage medium.

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13.   The method of claim 10 wherein said rules include at least one retention time for each established priority, and existing stored video data of a given priority is overwritten with new video data if the age of the existing video is outside of the applicable the retention time.

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14.   The method of claim 13 wherein the selection of storage locations to be overwritten comprises the additional steps of identifying the stored video at each priority level, beginning at the lowest priority level, applying any applicable rules to the video at such priority level to determine whether any such video stored at a given location is

10   expendable, and overwriting the first identified expendable video with the new video.

15.   The method of claim 14 wherein in the event that more than one stored video at a given priority level is determined to be expendable, the oldest such video is overwritten by the new video.

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16.   A method for managing units of video data on a storage medium comprising the steps of:

    a.   establishing a set of priorities for video data of different types;

    b.   establishing a set of rules for maintaining video data of a given priority;

    c.   assigning a priority to each new video data unit according to its type;

    c.   using a table to maintain at least the assigned priority, creation date and address for any video data stored at each storage location on said medium;

    d.   if said table reflects that empty storage locations are available on said medium, storing each unit of new video data in such empty storage locations and updating the corresponding entries in said table;

    e.   if said table reflects that empty storage locations are not available on said medium, scanning said table to select a storage location containing video data having the lowest priority that is expendable according to the data priority and the established rules; and

    f.   overwriting the video data in said selected storage location with said new video data and updating the corresponding entry in said table.

17.   The method of claim 16 wherein the selection of storage locations to be overwritten comprises the additional steps of using said table to first identify the stored video at each priority level, beginning at the lowest priority level, applying any applicable rules to the video at such priority level to determine whether any such video stored at a given location is expendable, overwriting the first identified expendable video with the new video, and updating the corresponding entry in said table.

18.   The method of claim 17 wherein in the event that more than one stored video at a given priority level is determined to be expendable, the oldest such video is overwritten by the new video.